DETAILED ACTION

Response to Amendment

1. Applicant's amendment filed on 3/17/2008 has been entered. Claims 1, 8, and 13 are currently amended. Claim 2 is cancelled. Claims 1, 3-16 are pending.

Response to Arguments

2. Applicant's arguments filed 3/17/2008 have been fully considered but they are not persuasive.

Applicant argues that the cited reference by Gallagher does not disclose the invention as amended. The examiner respectfully disagrees, as shown in the rejections made below, Gallagher teaches the essential features of the claimed invention.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1, 3-16 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding claims 1, 8, and 13, the added limitations in the amended claims are not supported by the specification originally filed. The specification filed fails to support the feature of recognizing "the absence or the presence of the mode activation signal"

as recited in the amended claims. The applicant failed to point out support for these newly added features.

Claims 3-7 depend on claim 1; 9-12 depend on claim 8; and 14-16 depend on claim 13; therefore, they suffer the same deficiency.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1, 3, and 6-7 are rejected under 35 U.S.C. 102(e) as being anticipated by Gallagher (US 6,963,270).

Regarding claim 1, Gallagher discloses a method for activating a desired communication mode of an ID communication partner device (RFID transponder) from a group of possible communication modes, which group comprises at least a first mode and a second mode (via tag-talk-first mode or reader-talk-first mode, Col. 8, lines 9-20),

wherein the ID communication partner device (transponder) and at least one other ID communication partner device (transponder reader) are brought into a communication connection and wherein a carrier signal is output by the at least one other ID communication partner device (when a command is output by the transponder

reader a carrier signal is outputted), which carrier signal is received by the ID communication partner device, and

wherein the carrier signal is repeatedly designated by at least one mode activation signal by the at least one other ID communication partner device (via command to clear the talk first bit of the transponder by the reader; See Col. 7, lines 41-53 and Col. 2, lines 54-65), and

wherein the absence or the presence of the mode activation signal is recognized by the ID communication partner device, giving a recognition result signal (via transponder clears talk first bit when command to clear the talk firs bit is detected, when the command is not detected the transponder does not clear the talks first bit), and

wherein, as a function of the recognition result signal, the desired communication mode of the ID communication partner device is activated, the desired communication mode of the ID communication partner device being one of a Reader Talks First (RTF) mode and a Tag Talks First (TTF) mode when the recognition result signal indicates the absence of the mode activation signal (via transponder stays in tag-talk-first mode when the command to clear the talk first bit is not detected),

the desired communication mode of the ID communication partner device being the other of the RTF mode and the TTF mode when the recognition result signal indicates the presence of the mode activation signal (via transponder changes to reader-talk-first mode when the command to clear the talk first bit is detected), the ID communication partner device being configured to operate in the RTF mode and the

TTF mode (See the Abstract; Col. 3, lines 6-14; Col. 7, lines 42-53; and Col. 8, lines 11-20).

Regarding claim 3, Gallagher inherently discloses the at least one mode activation signal is formed by a sinusoidal signal (signals transmitted are sinusoidal) and the carrier signal is inherently designated by a modulation (in order to properly transmit data) using the at least one sinusoidal signal.

Regarding claim 6, Gallagher discloses the carrier signal is designated only at predefined time intervals (via the appropriate time in the life cycle of the transponder). (See Col. 8, lines 40-44; and lines 16-20)

Regarding claim 7, Gallagher inherently discloses recognition of a communication status is carried out (in order to send the special command) and wherein the repeated designation of the carrier signal by the mode activation signal is carried out as a function of the communication status.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gallagher as applied to claim 3 above, and further in view of Kline (US 2002/0024423).

Regarding claim 4, Gallagher discloses the structural elements of the claimed invention but fails to disclose the mode activation signal is recognized by correlation.

Kline teaches a correlator connected to a receiver to receive a conditioned output signal for pulse correlation to recover an estimation signal that corresponds to symbols of a data to be recovered. (See Figure 5 and Paragraph 24)

From the teachings of Kline, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Gallagher to include the mode activation signal is recognized by correlation as taught by Kline in order to recover data in the mode activation signal.

Regarding claim 5, Gallagher discloses the structural elements of the claimed invention but fails to disclose the mode activation signal is recognized by filtering out the sinusoidal signal.

Kline teaches using a high pass filter to filter out an alternating voltage and provide a filtered output signal, as well as a matched filter connected to condition the

filtered output signal to filter out unwanted signals and provide a conditioned output signal. (See Figure 5 and Paragraph 24)

From the teachings of Kline, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Gallagher to include the mode activation signal is recognized by filtering out the sinusoidal signal as taught by Kline in order to a conditioned output signal for processing.

10. Claims 8-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gallagher (US 6,963,270), and further in view of Maclellan (US 5,929,779).

Regarding claim 8, Gallagher discloses the structural elements of the claimed invention as shown in the rejection of claim 1 but does not specifically disclose using an integrated circuit as a transponder reader, the integrated circuit comprising output means for outputting a carrier signal, the carrier signal can be received by another ID communication partner device, generation means for generating at least one mode activation signal, and designation means for repeatedly designating the carrier signal with the at least one mode activation signal.

MacLellan teaches a circuit (See Figure 2) for an ID communication partner device designed as a communication station (via interrogator 103), which comprises the following means: output means for outputting a carrier signal (via transmitter antenna 204), which carrier signal can be received by another ID communication partner device (tag 105), generation means (radio signal source 201) for generating at least one mode activation signal (via a sync signal, See Col. 3, lines 63-67), and designation means (via

modulator 202) for repeatedly designating the carrier signal with the at least one mode activation signal. (See Col. 3, lines 57-67; Col. 4, lines 1-10; and figure 2)

From the teachings of MacLellan, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the reader of Gallagher to include using an integrated circuit as a transponder reader because integrated circuits are commonly known to provide lower power consumption and decreased size of reader which improves the performance of the reader, and the integrated circuit comprising output means for outputting a carrier signal, the carrier signal can be received by another ID communication partner device, generation means for generating at least one mode activation signal, and designation means for repeatedly designating the carrier signal with the at least one mode activation signal in order to have the proper circuits to operate the reader of Gallagher.

Regarding claim 9, Maclellan discloses the generation means (radio signal source 201) are designed to form the at least one mode activation signal using at least one sinusoidal signal (electromagnetic radiation are sinusoidal inherently), and wherein the designation means (modulator 202) are designed to designate the carrier signal with the at least one sinusoidal signal using modulation (via amplitude modulation) (See col. 4, lines 1-10).

Regarding claim 10, Maclellan discloses the designation means (modulator 202) are designed to designate the carrier signal only at predefined time intervals (via the time interval when the interrogator is communicating with the tag, See Col. 4, lines 1-10).

Regarding claim 11, Maclellan discloses the communication status recognition means (via processor 200) are also provided, by means of which a communication status of the ID communication partner device can be recognized (via sync signal indicating the transfer mode), and wherein the designation means (modulator 202) are designed to repeatedly designate the carrier signal (via amplitude modulation) by the mode activation signal (via sync signal sent from interrogator 103 to tag 105) as a function of the communication status (See Col. 3, lines 57-67; Col. 4, lines 1-10; and figure 2).

Regarding claim 12, Maclellan discloses an ID communication partner device which is designed as a communication station (via interrogator 103) and which is provided with an integrated circuit (see figure 2) as claimed in claim 8.

11. Claims 13, 15 and 16 are rejected under 35 U.S.C. 103(a) as being anticipated by Gallagher (US 6,963,270) and further in view of Iijima (EP 0513507 B2).

Regarding claim 13, Gallagher discloses the structural elements of the claimed invention as shown in the rejection of claim 1 but does not specifically disclose using an integrated circuit as a transponder, the transponder comprising: activation means for activating a desired communication mode of the ID communication partner device from a group of possible communication modes, storage means for storing mode control data of the group of possible communication modes, which group comprises at least a first mode and a second mode, reception means for receiving a carrier signal that is output by another ID communication partner device and is designated with a mode activation

signal, and recognition means for recognizing the presence of the at least one mode activation signal.

Iijima teaches an integrated circuit (see figure 1) for an ID communication partner device (IC card 1) designed as a data carrier, which integrated circuit comprises the following means: activation means (via CPU 4) for activating a desired communication mode (protocol A or B) of the ID communication partner device from a group of possible communication modes, storage means (via mask ROM 2) for storing mode control data of the group of possible communication modes, which group comprises at least a first mode and a second mode, reception means (via contact portion 5) for receiving a carrier signal (via a signal containing commands) that is output by another ID communication partner device (external device 7) and is designated with a mode activation signal (via protocol selecting signal), and recognition means (via CPU 4) for recognizing the presence of the at least one mode activation signal (protocol selecting signal from external device 7, see paragraph 27), by means of which recognition means a recognition result signal can be generated (via “answer to reset” information generated by IC card 1, See paragraph 28), as a function of which recognition result signal the activation of the desired communication mode of the ID communication partner device can be activated by the activation means. (See Paragraphs 14-28 and figures 1-3).

From the teachings of Iijima, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the transponder in the system of Gallagher to include using an integrated circuit as a transponder, the transponder

comprising: activation means for activating a desired communication mode of the ID communication partner device from a group of possible communication modes, storage means for storing mode control data of the group of possible communication modes, which group comprises at least a first mode and a second mode, reception means for receiving a carrier signal that is output by another ID communication partner device and is designated with a mode activation signal, and recognition means for recognizing the presence of the at least one mode activation signal in order to have the proper circuits to operate the transponder of Gallagher.

Regarding claim 15, Iijima discloses the recognition means (CPU 4) are designed to recognize the presence of the at least one mode activation signal by filtering out this signal (via CPU 4 on IC card 1 recognizing protocol selecting signal from external device 7).

Regarding claim 16, Iijima discloses an ID communication partner device (via IC card 1), which is designed as a data carrier (via IC card 1 containing data), and which is provided with an integrated circuit (See figure 1) as claimed in claim 13. (See Paragraphs 14-28 and figures 1-3).

12. Claim 14 is rejected under 35 U.S.C. 103(a) as being anticipated by Gallagher in view of Iijima as applied to claim 13 above, and further in view of Kline (US 2002/0024423).

Regarding claim 14, the combination of Iijima and Gallagher disclose the structural elements of the claimed invention wherein Iijima discloses the recognition means (CPU 4) are designed to carry out the recognition of the presence of the at least

one mode activation signal by a demodulation (via communication I/O circuit 6 demodulating signal received from external device 7 and sending the demodulated signal to CPU 4 for processing, See paragraphs 27-29 and figure 1) but fail to disclose the demodulation is done using correlation.

Kline teaches a correlator connected to a receiver to receive a conditioned output signal for pulse correlation to recover an estimation signal that corresponds to symbols of a data to be recovered. (See Figure 5 and Paragraph 24)

From the teachings of Kline, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Iijima and Gallagher to include using correlation to demodulate the at least one mode activation signal as taught by Kline in order to recover data in the mode activation signal.

Conclusion

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to YONG HANG JIANG whose telephone number is (571)270-3024. The examiner can normally be reached on M-F 9:30 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian A. Zimmerman can be reached on 571-272-3059. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Y. J./
Examiner, Art Unit 2612

/Brian A Zimmerman/
Supervisory Patent Examiner, Art Unit 2612